

Appl. No. 10/729,359
Amendment dated May 11, 2005
Further amended June 1, 2005
Response to Office Action of January 12, 2005

REMARKS

Claim 1 has been amended to more clearly define the invention. The added element “comprising a first perforated tube, whereby the stream of air exits the tube through the perforations thereof and is directed around a first divider and a second divider and a third divider, lengthening the air pathway, whereby the stream of air” is supported by claim 6 as filed and on page 3, lines 6 and 20-24 of the Specification. The added elements “so as to direct the stream of air around the first divider thereby lengthening the air pathway”; and “so as to direct the stream of air around the third divider”, are supported by the Specification on page 3, lines 6, 20-24.

The Examiner has objected to Claim 2, line 1 because “the interior surfaces lack antecedent basis.” Claim 2 has been amended to correct this deficiency. The amendment “walls and baffles” is supported by the specification, page 8, lines 15-16.

The Examiner has rejected claim 9 as under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 9 is canceled.

Claims 1 and 2 are rejected under 35 U.S.C. §102 (b) as being anticipated by Francis (US 4,905,789). Examiner describes Francis as providing an inlet muffler box which receives a turbulent stream of air which is directed along an air pathway and is transformed into an approximately laminar stream of air. Applicant respectfully disagrees about the teachings of Francis. Applicant agrees that, like the present invention, the invention of Francis provides mufflers both at the inlet and outlet of a blower. However, it is unlikely that Francis’ assembly produces a laminar stream of air with concomitant reduction in aerodynamic noise. As explained in the specification on page 3, lines 20-24, the transformation to laminar flow of this assembly is not due to the dual mufflers, but rather to passing the airflow through the perforations of the inlet and outlet tubes and to the lengthening of the air pathway. Francis does not teach or suggest this feature. Claim 1 as amended adds these elements and clarifies the distinction between the present invention and that of Francis. The lining of the pathway with anechoic material serves to reduce the mechanical noise from the blower, a feature that Francis does provide. However, the essence of this invention is the simultaneous reduction of both aerodynamic and mechanical noise. Claim 1 being amended and claim 2 depending on claim 1, Applicant proposes that the anticipation rejection is overcome.

Claims 3-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Francis in view of Watanabe et al (US 5,783,780). The Examiner states that Francis teaches all of the

limitations of the invention as claimed and Watanabe adds the element of reduced cross-section. As discussed above, Francis does not teach all of the limitations as claimed in the amended claims 1 and 2, upon which claims 3-5 depend. Particularly, Francis does not teach the

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lengthened air pathway of the present invention as now set forth in amended claim 1, which converts the air stream to a laminar flow, thus reducing aerodynamic noise. Lacking this element in either reference, the combination of Francis and Watanabe does not teach or make obvious the invention the invention as currently claimed.

Claims 6-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Francis in view of Steele (US 5,274,201). As discussed above, Francis does not teach essentially all of the limitations of claims as amended, lacking the crucial limitation of a lengthened air pathway of the present invention, which converts the air stream to a laminar flow, thus reducing aerodynamic noise. Steele teaches a muffler for an air blower having a lengthened air pathway to attenuate, abate and reduce the noise level. The Examiner states that Steele does this by providing an array of multiple perforated tubes. Applicant believes that the Examiner has misunderstood Steele. Steele does not have "perforated tubes" as does the present invention, but describes "stiff tubular element made out of an air pervious material such as glass wool" (Steele, column 2, lines 54-58.) Steele's tubular elements are not a major part of the air pathway, which is described in Steele's Claim 3 as a "continuous, hollow tube," but rather are equivalent to the spacers of the present invention, covered with anechoic material. Here, the anechoic tubes are the spacers. As Applicant understands Steele's invention, looking particularly at the air flow arrows of Figures 2 and 4, the air stream flows through the serpentine pathway defined by the air pervious spacers, the air entering and exiting "in a somewhat random fashion" (Steele, column 3, lines 15-16), with the contact of the air stream to the anechoic spacers reducing the aerodynamic noise. Claim 1 of this application as amended now clearly describes the perforated tubes and perforations thereof as a major element of the air pathway "comprising a first perforated tube, whereby the stream of air exits the tube through the perforations thereof" Applicant asserts that claim 6 as amended is not obvious from Francis in view of Steele. Claim 7 is dependant on claim 6 and claim 6 being allowable, is entitled to allowance. Claim 8 describes in detail the air pathway with is the essence of this invention and Francis plus Steele not teaching the perforated tubes and the lengthened pathway, is not obvious from Francis plus Steele.

Claims 1 and 6 being amended and Claim 9 canceled, Applicant believes that the claims are now in order for allowance, which notice is earnestly sought. If the Examiner has any further questions, he is invited to contact Applicants attorney at the below phone number.

Respectfully submitted by Attorney for Applicant,

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